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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,152	04/02/2004	Otfried Schwarzkopf	825-00179	1195

7590 06/12/2008  
Gary A. Essmann  
ANDRUS, SCEALES, STARKE & SAWALL, LLP  
Suite 1100  
100 East Wisconsin Avenue  
Milwaukee, WI 53202

EXAMINER
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LOPEZ, FRANK D

ART UNIT	PAPER NUMBER
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3745

MAIL DATE	DELIVERY MODE
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06/12/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/817,152	<b>Applicant(s)</b> SCHWARZKOPF, OTFRIED	
	<b>Examiner</b> F. Daniel Lopez	<b>Art Unit</b> 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Amendment***

Applicant's arguments filed February 21, 2008, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claims 8-10 have been considered but are deemed to be moot in view of the new grounds of rejection. The new grounds of rejection are necessitated by the added limitations that the swivel disk has a slot.

Applicant's statement that the prior art does not show such a slot, is disagreed with by the examiner (see discussion below in the 103 rejection).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

Claims 8-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8 line 1 "in particular..." is confusing, since it is unclear whether or not the elements following in particular are part of the claim limitations. In claim 8 line 5 "said disk" should be --said swivel disk --, to agree with lines 3 and 11.

Claims 9-11 are indefinite, since they depend from claim 8.

***Claim Rejections - 35 USC § 103***

Claims 8-10 and are rejected under 35 U.S.C. § 103 as being unpatentable over Kuhn et al in view of Loomis. Kuhn et al discloses a reciprocating compressor comprising a sliding sleeve (21) axially movable along a drive shaft (5) and connected to a swivel disk (6) in an articulated manner (via 22, 23); wherein the disk is provided with a slot (16) disposed proximate a circumferential edge; a spherical supporting element (15) is disposed in the slot for providing axial and torque support to the disk; wherein the spherical supporting element rotates with and is spaced apart from the drive shaft by a force transmission pin (13), projecting away from the drive shaft at an angle, such that when the swivel disk is tilted, the pin axis is oriented radially with respect to the swivel disk; but does not disclose that the sleeve transmits substantially only torque and the supporting element provides substantially only axial support.

The radial axis of the slot (claim 1 line 13) is understood to have a certain direction (either radial to the shaft, or radial to the slot axis) but the longer axis of the slot (claim 1 line 13) is understood to be perpendicular to the radial axis. The “longer” before “Axis” is understood to be naming this axis and does not form any further limitation. Note that an axis by definition does not have a particular length. If applicant is referring to a dimension of the length, that dimension along the axis must be defined in the claim.

Loomis teaches, for a reciprocating compressor comprising a sliding sleeve (14) axially movable along a drive shaft (12) and connected to a disk (25) in an articulated manner (via 27); wherein the disk is provided support by a supporting element (30), which rotates with and is spaced apart from the drive shaft by a force transmission element (31); that the sleeve transmits substantially only torque, via splines (column 3 line 7-8, 26-28) and the supporting element provides substantially only axial support, by allowing the disk to move circumferentially relative to the force transmitting element.

Since the supports for the disk of Kuhn et al and Loomis are equivalent in the swash plate machine art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to substitute a splined sleeve for the sleeve of Kuhn et al, to transmit substantially only torque; and by substituting a supporting element, which provides substantially only axial support, by allowing the disk to move circumferentially relative to the force transmitting element, for the supporting element of Kuhn et al provide substantially only axial support, as taught by Loomis; since one having ordinary skill in the art would understand how to make the substitution and the results are reasonably predictable.

### ***Conclusion***

Claim 011 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:00 AM -4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

/F. Daniel Lopez/

F. Daniel Lopez  
Primary Examiner  
Art Unit 3745  
June 14, 2008